

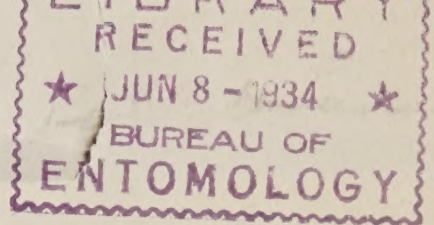
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### SILICATED PYRETHRUM SOAP FROM COCONUT OIL

The ~~insecticidal~~ constituents of this preparation are the sodium soap made from coconut oil, sodium silicate, and the alcohol extract of pyrethrum flowers.

#### Formula:

Pyrethrum extract	9-1/2 ounces
Mixed fatty acids from coconut oil	5 pounds
Sodium hydroxide, c.p. stick	15.2 ounces
Water	2-1/2 gallons
Sodium silicate solution (40-42°Be)	9 fl. ounces.

#### Pyrethrum Extract:

Pyrethrum flowers are extracted with ethyl alcohol, the alcohol solution is separated from the flowers, and the alcohol distilled off. Overheating of the nonvolatile residue is to be strictly avoided. The weight in the formula above, refers to the residue obtained when the alcohol has been completely volatilized.

#### Mixed Fatty Acid from Coconut Oil:

The free fatty acids of coconut oil are prepared by any of the usual methods. Any mineral acid that may be present is washed out with warm water.

Mixed fatty acids from coconut oil with the following constants yield satisfactory results.

Acid value	258-270
Iodine value	8-10
Refractive index (25°C)	1.440

#### Sodium Hydroxide:

While in the formula, stick sodium hydroxide has been specified, any good grade of caustic soda is satisfactory. Due allowance must be made for the water content of the various grades.

#### Sodium Silicate:

Sodium silicate solution, 40-42°Be, is used. The approximate composition of a satisfactory product is  $\text{Na}_2\text{O}$ -9%;  $\text{SiO}_2$ -29%;  $\text{H}_2\text{O}$ -62%.

#### Method of Preparation of the Stock Insecticide:

The mixed fatty acids are weighed and placed in a suitable mixing vessel. Two gallons of water is added, and the sodium hydroxide is dissolved in the other half gallon of water. The water and fatty acid are warmed to about 70°C, and then removed from the fire. The caustic soda solution is poured in slowly with constant stirring, and the stirring continued until the solution becomes clear. While the mixture is still hot, the pyrethrum extract is added and the stirring is continued until a uniform mixture results. This is allowed to cool, and finally the sodium silicate solution is stirred in. The finished product can be stored in closed containers.

*E. R. Van Leeuwen*



ENTOMOLOGICAL

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The following is a list of the specimens of the genus *Entomologia* which have been deposited in the collection of the Entomological Society of America.

1. *Entomologia* (1890-1895) 100 specimens  
2. *Entomologia* (1896-1900) 100 specimens  
3. *Entomologia* (1901-1905) 100 specimens  
4. *Entomologia* (1906-1910) 100 specimens  
5. *Entomologia* (1911-1915) 100 specimens  
6. *Entomologia* (1916-1920) 100 specimens  
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